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ABSTRACT

The following topics are discussed to show various forms for cooperative ventures in the information field which countries within a region might consider: (1) building up basic resources, collections, and stores; (2) collective retrieval tools to the combined resources of the region; (3) regional information service activities; (4) communication network development; (5) training of users and information officers; (6) machinery for regional cooperation; and (7) prerequisites for effective regional cooperation. Some examples of regional cooperation in the information field which have proved successful are included and serve as models. The paper was used as a discussion guide for the UNESCO sponsored workshop held in Rabat, Morocco from May 24-28, 1976. (JPF)

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Workshop on Possibilities for Improving Information Transfer

Discussion Guide

UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

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UNITED NATIONS EDUCATIONAL,
SCIENTIFIC AND CULTURAL ORGANIZATION

Workshop on possibilities for improving information transfer

Discussion Guide

I. Introduction

II. Building up basic resources, collections and stores

III. Collective retrieval tools to the combined resources of the region

IV. Regional information service activities

V. Communication network development

VI. Training of users and information officers

VII. Machinery for regional cooperation

VIII. Prerequisites for effective regional cooperation

(COM.76/CONF.713/COL.1)

I. INTRODUCTION

1. The intention of this paper is to show various forms for co-operative ventures in the information field which countries within a region might consider. Co-operation over the national border, however, presents many problems, some of which habe to be solved between the countries before co-operation can take place. This paper also seeks to develop an attitude of co-operation in the hope that an understanding of the mutual benefits of a true and unselfish co-operation might serve as a major step in developing library and information services for all users in the region wherever they may be. People are not interested in the problems created by artificial customs, fiscal and other barriers. All they desire is effective and prompt service.

2. The concept of "information service networks" is applied here to a variety of structures with, at one extreme co-operative arrangements among groups of libraries to enhance their services,and at the other co-operative support of a centralized function for common use within a region. Some examples of regional co-operation in the information field which have proved successful will serve as models.

II. BUILDING UP BASIC RESOURCES, COLLECTIONS AND STORES

3. When building up the information resources of a country, the main principle guiding acquisitions is to achiev local self-sufficiency in order to best serve the needs of the users. However, when it becomes evident that the information stores, libraries, documentation centres, etc., can house only a continuously diminishing proportion of the world's literature, the necessity of sharing resources with other countries will gradually be realized.

4. Very few countries can afford to maintain a high degree of self-sufficiency in the information field. Therefore, the principle of co-operation and sharing of resources represents a realistic alternative to the self-sufficiency principle, and the following will show how co-operation could be used in a constructive way between countries within a region.

5. Today, few would argue that those who want to read could afford to procure every book themselves. Instead, information is more and more regarded as a national resource, and the establishment and maintenance of libraries becomes a matter of government policy. The Unesco puclic library manifesto states that the content of the public library "should be a living demonstration of the evolution of knowledge and culture, constantly reviewed, kept up to date and attractively presented. In this way it will help people form their own opinions and develop their creative and critical capacities and powers of appreciation. The public library is concerned with communication of information and ideas, whatever form in which these may be expressed. Since the printed word has been for centuries the accepted medium for the communication of knowledge, ideas and information, books, periodicals, newspapers remain the most important resources of public libraries.

6. But science has created new forms of records and these will become an increasing part of the public library's stock, including print in reduced form for compact storage and transport, films, slides, gramophone records, audio and video tape, for adults and children, with the necessary equipment for individual use and for cultural activities.

7. The local collection should include material on all subjects, to satisfy all tastes at differing educational and cultural standards. All languages used by a community should be represented and there should be books of world importance in their original languages".

8. Libraries which conform to this definition exist in very few countries, and rarely, in sufficient numbers. Rather it is a commendable goal to achieve for libraries of a whole region. As a large part of Unesco's programme for library development is concerned with the development of libraries in terms of the Manifesto, it could have more impact if it were directed towards library development within a region, than towards individual libraries in one country.

9. Three planning areas for building up the basic resources of a region in terms of the Unesco Manifesto might be considered : (1) to establish a provision plan ; (2) to adopt a distribution plan ; (3) to co-operate in a publications plan.

10. A provision plan for regional acquisitions is already a step to further co-operation. From a national point of view it seems important that every country determines its national needs and priorities for information, and thus, decides which knowledge stores it must have and cannot, strategically, be without. But even if there are many good reasons for a country to become independant of others in its stores of certain basic areas of knowledge, there are financial reasons for relying to a certain extent on neighbouring countries.

11. Many nations, like the Scandinavian ones, not using one of the more widely used languages are faced with special problems in obtaning access to the world's literature. It has been found necessary to establish a provision plan, called the Scandia Plan, which might be used as a model for further studies. The responsability for the coverage and exhaustiveness of the collections within various specified fields has been divided between the libraries in the four countries. Outside those fields, where for political, stratagical or educational reasons, material must be acquired by each country, a policy of selective access and adaptation to the national needs of the Scandinavian countries has been followed.

12. Other acquisition plans like the Sondersammelgebiete of the Federal Republic of Germany, or the Farmington Plan of the U.S.A. are also often taken as examples, but from those national plans to one which will cover a number of countries within a region is a big step. A provision plan which makes co-operation possible to such an extent that a participating country may rely, for certain subject fields, on its neighbour, is dependent on the country's willingness and intent to look upon the national acquisition problem in a broader perspective, namely that of the region.

13. Therefore, a step-by-step procedure could start by an acquisition plan between the national libraries in the region and by sending a letter of intent proposing some possible subject areas for co-operative acquisitions. A similar procedure could follow for university libraries, special libraries, and research institute libraries. Often, their collections are already diferentiated to some degree which opens up opportunities for co-operation in the acquisition field.

14. The follow-up would be to form a committee of the national librarians in the region to draw up the regional acquisition plan and designate responsible agents. Similar committees could also be formed for the university libraries, and for specialized libraries within such fields as agriculture, medicine, law and political sciences, technology, etc.

15. In order to base the provision of foreign material on a more solid foundation, some groundwork might be needed, namely :

(1) to compile an inventory of the specialities and fields of interest of the co-operating national libraries, and of the other types of libraries. This could be done by means of a questionnaire sent out by the committees ;
(2) to try to obtain some estimates of the distribution of current periodicals in specific fields among the libraries in the region, so as to have a basis for an evaluation of the acquisition plan for the region drawnup from the fields of interest expressed in the inventories in (1) above ;
(3) to assess in which fields a geographical-language-base distribution of responsabilities could be made, and where a subject-oriented approach might be more appropriate ;
(4) to list the libraries to participate in the planand their responsibilities for a certain speciality, and to distribute this list as widely as possible.

16. The Scandinavian countries, and also the COMECON ones, have been pioneers in establishing such co-operative plans for the acquisition of literature extending beyond the needs of a single country. Other countries might take their experience as models for any action in this field. Unesco recently sponsored the first Latin American Seminar on the Control and Acquisition of Bibliographic Material (SAMBLA) to explore the possibility of a similar scheme for that region.

17. A distribution plan could be effective for a region where national, university and many special libraries are faced with the growing masses of literature coming in as gifts or on exchange form all parts of the world - even from many countries which earlier were not counted among those leading in scientific fields. At the same time, development in technology, communications, cultural exchange, etc., have made our globe a very small world. Thus, no country can be regarded as non-pertinent or irrelevant from the viewpoint of other countries. However, is obvious that few libraries will be able to store and preserve all literature received.

18. Theobjective of a distribution plan among libraries is to reduce the duplication of little-used material. A co-operative committee of librarians from the region could draw up a distribution plan for little-used material acquired within the region by gifts or exchange.

19. Many libraries at times think it is a nuisance to be the recipient of stacks of unsorted items of obviously little value. However, a distribution plan may make it possible to find some much needed items which will complete a collection. Accepting gifts or exchange material becomes more worthwhile when responsible libraries exist to which these can be handed over in order to meet the needs of a whole region.

20. Government documents especially issued by national, state, or municipal bodies often find their way to a great many libraries, even though only a few foreign government publications may be of interest. Each library must determine wether it will hold complete files of certain series of government documents, or whether a selection will be adequate, the rest being handed over to a regional depository.

21. The basis for a distribution plancould be the language abilities available in various libraries, so that, for instance, Latin American material would go to a library whose staff was knowledgable in Spanish or Portuguese, Sino-Japanese material to one with such language abilities, etc.

22. The responsible library could be given the task of widening contacts with the language area on behalf of the whole region. It should try, especially, to cover the important bibliographies of the pertinent area. If the co-operating libraries wish to transfer to the responsible library material within its scope, the latter should receive, select at discard, store and make it available to the other libraries of the region.

23. Co-operative acquisition plans do not however solve all the problems. Thus, the transportation of material over the national borders must continue without delay and at minimum cost, and interlibrary loans and provision of microfilm services between the libraries should be developed and raised to a satisfactory service level.

24. Unesco continues to enlist the support of competent international organizations for measures designed to facilitate the circulation of educational, scientific and cultural materials. To this end, proposals to reduce tariff, freight and surrency obstacles to the movement of these materials will be submitted to the General Agreement on Tariffs and Trade (GATT), the International Air Transport Association (IATA), the United Nations Conference on Trade and Development (UNCTAD), and the Customs Co-operation Council (CCC).

25. In the light of this efforts countries within a particular region should try to draw up protocols which harmonize with the two existing agreements on the free flow of materials, and where necessary extend them to cover the needs of the co-operative plans. They should also adhere to the Convention concerning the International Exchange of Publications and the Convention concerning the Exchange of Official Publicationsand Government Documents between States.

26. Unesco also encourages the establishment of co-operative publications plans as a means of developing a book market in a region. In most developing countries the literacy rate is slowly increasing, but there is a shortage of experience and resources for publishing books of suitable quality for the newly literate.

27. A successful example of an on-going multinational publishing interprise which might be mentioned as a model for regional co-operation, is the Unesco Regional Book Development Scheme initiated in Japan in 1966 by the Asian Co-publication Programme. A collection, Folk tales from Asia, subtitled "for children everywhere", has demonstrated that book people from all over Asia can reconcile cultural differences andco-operate to produce a work that is now distributed in 15 languages.

28. Member States in Asia were asked to submit two or three of their own folktales, together with illustrations. An editorial multinational conference was held in order to allow a central editing board to make the final choice among the entries which had to be based upon four criteria : (1) be representative of the culture of the country ; (2) inspire human values ; (3) have universal appeal ; (4) not be offensive to any group of people.

29. The stories chosen were retold in English and edited and adapted with the help of two specialists in children's literature. The books were then produced by Unesco's Asian Cultural Centre and Tokyo Book Development Centre, and distributed by the Unesco National Commissions. A country like Sri Lanka plans a paperback edition of 100 000 copies for distribution to schoolchildren.

30. Such co-publishing schemes should not be limited to children's books, but could also embrace simple books for adults on current affairs, national and regional interests, questions of community welfare, etc.

31. An area which is extremely well suited to co-operation on a regional basis is the scientific and technological publication field. In order to succeed in the primary publication field a scientific journal has to be well edited, easy to absorb for the secondary journals, of regular frequency and concentrated on one subject area.

32. These conditions are difficult to fulfill for a single country even though it might have a strong subject-oriented research staff wanting to publish regularly. In recent years the individual Scandinavian countries have ceased publication of many national scientific journals which never reached an edition of over a thousand copies. Instead, Scandinavian co-operative publication committees have been established in a number of scientific fields by the national research councils which then support jointly-edited journals and also supervise the committees.

33. Thus, some of the well-known primary journals such as Acta chemica scandinavica, Mathematica scandinavica, Oikos, Tellus, Lithos, Lethaia are co-published in the field of sciences, and in medicine, for instance, there are journals, like Acta Medica scandinavica, Acta paediatrica scandinavica and many others.

34. Usually, each country owns one share in the journal and elects one member to its editorial board. The Acta chemica scandinavica, with its circulation of 3 000 copies, is now among the leading journals in chemistry.

35. To improve the content of primary journals Unesco has encouraged closer co-operation between the editors particularly through the establishment of associations of editors of journals in different subject fields, i.e. Association of Earth Science Editors.

36. Also, to promote closer contacts between editors of documentation, library and archives journals, Unesco has organized one Symposium for these editors and proposes to hold another in 1977-78.

III. COLLECTIVE RETRIEVAL TOOLS TO THE COMBINED RESOURCES OF THE REGION

37. When there is an urgent need for a book or a periodical which is not owned by a library and cannot be purchased, efforts are made to discover where it can be found in other libraries. If groups of libraries in a geographic region have established reciprocal arrangements for loans, maximum use of the combined literature resources can be achieved by the compilation of collective catalogues providing information on the location of the wanted material.

38. A union catalogue of periodicals, especially in such fields as science, medicine, agriculture, technology, etc., is relatively simple to compile, provided that it is limited to titles only and the co-operating libraries are willing to share the information. The benefits of such a location tool can hardly be over-estimated. In fields like medicine and technology a title list only will be sufficient, since most of the periodical articles needed will be in issues of the current year. Even if it is produced once only, such a union list can serve for several years.

39. One method of compilation is for each co-operating library to send cards of its foreign periodicals to the library responsible for preparing the union list. Another way is to take an existing printed list of periodicals and send it round for marking to the co-operating libraries. By using a list which exists in machine-readable form the subsequent printing process can be facilitated. An example of such a list is the Base File of the International Serials Data System (ISDS) which contains 28 000 titles and is available form the ISDS centre in Paris.

40. The International Serials Data System (ISDS), established within the framework of the UNISIST programme, acts as a central node in an international network of national centres, whose primary goal is to meet the need for can internationally-accepted coding system forperiodical titles supported by effective machinery for collecting, recording and disseminating accurate information on serial literature. As all Unesco Member States have been asked to set up national ISDS centres, a close regional co-operation among them could be beneficial both for the input phase and for output products.

41. A union catalogue of periodicals including holdings would be an ambitious task for co-operating libraries of a region. It is also a much more time-consuming work - under favourable circumstances such a venture takes three time as long to compile as just a title for only one country. A list of holdings for a whole region would take even longer to complete.

42. A union catalogue of foreign books acquisitions might be considered, especially for countries where foreign currency is scarce,and provided that an interlibrary loan service is developed between the countries of the gion. Such catalogue can either be just a central card catalogue in one designated library to which queries must be sent every time a book is needed, or an annual or semi-annual list, duplicated and distributed among the co-operating libraries enabling a needed book to be easily located.

43. A venture which could be of interest not only for the region but for the whole world, and thus, more easily attract international funding, would be the compilation of a bibliography of unique works, for instance, of manuscripts or other unique collections.

44. The Universal Bibliographic Control (UBC) programme launched by Unesco and the International Federation of Library Associations aims to achieve universal availability, in an internationally accepted interchange form of basic bibliographic data on all publications. UBC will therefore facilitate the exchange of cataloguing cards between countries, particularly at the regional level. The use of computer techniques to register bibliographic records has already made it possible for several countries to use the MARC II format and tapes. Unesco is

helping certain developing countries to create software for the cataloguing of books in Arabic and in Thai, compatible with the International Standard Bibliographic Description for Monographs [ISBD (M)] and with the MARC II format. It is also encouraging similar projects, such as the use of the CALCO format for Latin America. The aim is to make software available at the regional level to groups of countries speaking the same language.

45. A modern library deals not only with printed materials, but also with films, video-tapes, gramophone records, tapes, etc. and there would certainly be common benefits in establishing collective catalogues for such media available within a region.

46. Even if the librarians agree to co-operate to establish one or more of the tools mentioned above, there will still be a need for contributions to the expenses of a union catalogue which the individual libraries will not be willing to make. Therefore, government support will be needed, based on shares from each country of the region.

47. A simple thing to compile, but of great information value, is a guide to the various libraries in the region. Such a guide could include short descriptions of important collections, addresses, telephone and telex numbers, and existing restrictions on usage. Unesco is at present preparing a second edition of its Directory of documentation centres, libraries and schools of librarianship in Africa.

48. Similar in kind, but still more valuable for the common user in search of information would be a guide to information sources in the region. A model might be the Scandinavian research guide arranged according to the UDC. Such a guide should list research laboratories, agricultural extension centres as well as libraries and documentation centres.

IV. REGIONAL INFORMATION SERVICE ACTIVITIES

49. While union catalogue can be looked upon as corner-stones in the structure of physical accessibility to dispersed library collections, access could also be improved by centralized mecanisms funded collectively or with foreign support.

50. Setting upa central source that provides a certain service to a group of recipients in a region can take different forms. It can be a clearing-house activity in a specific subject field, or for specific types of literature. Good exponents for the concept are the Clearinghouse on Educational Media and Technology (ERIC), the Clearinghouse for Mental Health Information (NIMH) in the United States, the INIS centre in Vienna and the VINITI in Moscow. Such clearing-houses on a regional basis could be set up not only for books and technical reports, but also for microforms, films, duplicates, government publications, etc.

51. A similar type of activity is the Referral centre, taking the form of a regional enquiries service where requests for information are received and answers to specific questions are obtained not by physical reference to the literature, but by reference to other centres, libraries or even individuals. The referral centre deals with telephone, oral and postal enquiries. Recently, the

possibility of a referral centre for science policy serving a particular region has been discussed at Unesco. It would mean that a user having a quary about a policy for the research development of chemical engineering could query such a referral centre which would then put him in contact with government officials in countries where such a policy had been implemented. Part of UNIDO's activity is of the referral type.

52. Another area where countries, in spite of different levels of development, want to co-operate is in the transfer of technology. Setting up a technical information service for the region to promote the utilization of technological knowledge in industry would benefit countries also in the process of creating such a service. Experience could be gained from services already operating in other countries in order to :

(1) profit from the experience of those services already in existence in the industrialized countries,
(2) exchange experience between the various services or centres existing in the region,
(3) formulate recommendations which will serve as a guide for those countries in the region which do not have such services.

53. Access to the bibliographical resources accumulated by the various libraries and information centres is essential if the requests for information are to be adequately met.

54. The initiation of a Question-and-Answer service, Q/A, is usually recommended only in those organizations which already offer programmes of information for industry or technical assistance. However, such a service could be built up on a regional basis. One fact must be emphasized, namely, in order to establish a Q/A service, it is not necessary to have the financial means for a huge stock of bibliographical material ; in the majority of cases, it is enough to have established adequate contacts which, in turn, are in communication with the various centres which have ready access - both locally and internationally - to reference material.

55. Thus, technical information services need ade uate technical, commercial and economic collections upon which they can rely in order to accomplish their mission. There is a strong case for regional activity to create and strengthen the collections in libraries and information centres so that the technical information service could be performed within the reach of industry.

56. A still more elaborate form of service is given by an information analysis centre which digests and evaluates available information in a clearly defined field of knowledge or in relation to a specific mission. An IAC compiles, interprets, repackages or otherwise organizes and presents to the users pertinent information in a most authoritative, timely and useful form - the most common forms being critical reviews, digests, state-of-the art reports, data compilations, annotated bibliographies and evaluated answers to specific questions.

57. A model for developing countries might be the International Rice Institute in the Philippines, which serves scientists, research workers, and those in extension services, but not the farmer who is served by the extension service officer.

58. Opportunities for obtaining assistance from international organizations exist and for the benefit of a region the following requirements should be stated : (a) the establishment of a definite goal for a regional service ; (b) to find ways and means for pursuing that goal ; (c) to demonstrate the viability and feasibility of the goal stating different phases for its creation and operation ; (d) to reach an agreement on the first phase.

59. The formation of a regional co-operative service is in the interest of many international organizations. Therefore, organizations like Unesco, UNIDO, FAO, etc. might be approached for financing or for missions.

60. Selective Dissemination of Information (SDI), is another activity which from many viewpoints could best be undertaken on a regional basis. SDI means the setting up of user profiles in machine-readable language which are then run against tapes from data bases, governmental or commercial. Examples are the INIS-tapes from the International Atomic Energy Agency, Vienna, run in Sweden for all users in the Scandinavian countries, by the Nordic Atomic Libraries Joint Secretariat, NALJS, in Denmark. A similar venture is contemplated for the Caribbean area for the AGRIS II tapes from FAO. Canada offers the CAN/SDI programme package for countries wishing to embark on such a venture. Close to this comes the exploitation of MARC.

61. A procurement centre for non-conventional literature providing users with references in the form of a current awareness service or SDI, does not, however, solve the immediate follow-up problem of obtaining for them the documents referred to by the service. Union catalogues only serve the purpose as long as material is available in the region, but what about references to technical reports, patents and other non-conventional material ?

62. One solution is to accredit scientific and industrial attachés in foreign countries, but national prestige might hamper the nomination of such attachés for a whole region. Another solution might be to set up a document procurement service which will obtain for users a photocopy, microfilm or reprint of any published scientific or technical paper in a major country. In 1960, the Scandinavian countries established such a centre, SCANDOC, in Washington, D.C. The SCANDOC procures specified documents on request, and it also makes literature searches as a service to science and industry in the four Scandinavian countries, Denmark, Finland, Norway and Sweden. It is financed by a basic grant proportional to the GNP of each country, and on a user fee, so that a country which makes heavy demands on SCANDOC pays more.

63. A project related to this field of activity has been foreseen in Unesco's draft programme for 1977-78. It is proposed to study the possibility of establishing regional leading libraries in Africa and Latin America similar in function to the British Library Lending Division in Boston Spa which offers lending and photocopying services to British and many overseas institutions.

64. Another type of central sources serving a whole region is a translation pool which will, provide a user with a complete translation or abstract, in a language he understands, of any article which has been published in a language unfamiliar to him.

65. Countries in a region not using one of the widely-used languages face special problems in achieving access to the world body of knowledge because of the language barrier. If they wish to adapt the literature of the outside world to local needs, perhaps the most expensive, but unavoidable task is translation into the national language.

66. The setting up of a central translation pool adapted to local needs would avoid the necessity of duplicating that effort in each country.

67. The setting up of a registry or clearing-house for completed translations in the region could be a modest beginning.

68. Similarly, a reprographic, microfilming and printing service could be set up centrally to reproduce documents required by institutions or individuals in the region. Such a centre could also undertake specific projects on behalf of the co-operating countries, for instance, a microfilming project for rare prints, manuscripts, newspapers, maps, etc.

69. Printing work might be undertaken for the co-operating bodies depending upon the workload of the centre.

V. COMMUNICATION NETWORK DEVELOPMENT

70. In contrast to mechanisms for co-operative endeavours composed of a central source that privides service to the users in a region, the establishment of information networks means that the service becomes reciprocal or bi-directional. Each node involves both active input and reception or information.

71. A simple network for improved library co-operation is a telex or teletype network. Few libraries will have sufficient funds for installing a telex service, therefore, government contribution, but that the result will be an improved service at a lower cost per inquiry. To overcome language difficulties and speed up the traffic, IFLA has published a specific code-language for telex communications between libraries. (1)

72. A somewhat similar type of network is a telefacsimile network which makes it possible to transmit full pages of documents over the telephone network to overcome postal delays, custim barriers, etc.

73. However, the costs of interactive terminals having a display screen, a keyboard and a printing facility lessen markedly every year. Simple devices are now marketed for the same price as that of two electric typewriters. Such terminals are used over the ordinary telephone network and are thus connectable worldwide to computers in distant locations, for instance in Europe or the United States. The rapid growth of the information/computer/telecommunications complex is outdistancing old concepts about the necessity to establish and maintain large national or regional documentation centres.

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(1) IFLA-IATUL Telecode and telex adress book for libraries in 10 languages. London, IFLA, 1966, 186 p. (International manuals, n°1)

74. Since the total telephone bill for a region for terminal usage of data banks in Europe or the United States will soon reach considerable sums, regional solutions might be contemplated. In practical terms this means that because of varying tariff policies in the region, national interests, directly or indirectly, will determine the feasibility of a regional solution to the communication problem. Therefore, the telecommunications authorities of the region have to come to terms and offer their assistance for the development of an orderly network in the region.

75. Many new international projects, like INIS or AGRIS, are requesting active input from participating countries because it has become necessary to share the input work. In many cases, this is done by sending work-sheets. However, from a regional viewpoint it might seem both feasible and economic to have remote input through teleprocessing to a regional processor which handles the compilation and transfer of data to the international centre. On the local level, this means that interactive terminals have to be installed and connected over telecommunication lines to the regional computer. Interactive systems for this purpose are available from many international organizations, e.g.the ISIS from the International Labour Organizations in Geneva. ISIS could be used for the exploitation of MARC tapes within a region.

76. Similar to an input operation is an organization whereby the libraries or documentation centres interested in a regional SDI-service (see para. 60) could make-remote on-line input of their own profiles, up-date and maintain them in on-line mode, while the central computer facility runs them in batch mode every time a SDI tape comes from the data base producer. Such a facility is in operation in Scandinavia in the ESCS/VIRA system in Stockholm ; the remote terminals in various centres to the profiling work themselves.

77. The publication of bibliographics and other retrieval tools already suffestted could be supplemented by an on-line retrieval system which would enable each terminal user directly to interrogate the regional centre. This could be a venture for regional co-operation.

78. An outstanding example of a service from what is called a star-type network : is the European Space Agency, Space Documentation Service (SDS) network which, with Unesco funding, has a terminal node on African soil at Rabat where access to a number of data bases in pure and applied sciences is available. Unesco, through a pilot project in Tunisia, is studying the possibility, in co-operation with the Moroccan Centre, to extend the exploitation of this data base to a regional network. The SDS network could serve as a model, if network planning for a region is contemplated in order to conduct and switching functions for information stored in a regional centre and transmitted to users in real time.

79. The SDS network makes it possible to install remote (medium speed) printout facilities at the network nodes to overcome postal delays, and to use minicomputer concentrators at the principal nodes to provide for synchronous and dial-up terminals to use the same communication channel. Examples of such an installation will be available in Stockholm in 1976.

80. Other models for network development exist and a regional pilot project for network development might be guided by the following criteria set up for the EUDINET in the United States :

(1) that the network be sufficiently extensive to permit access by an appreciable part of the academic community ;
(2) that it be capable of serving a diversity of applications ;
(3) that it provide a full range of communications experience with multiple media ;
(4) that it be expandable to accommodate continued growth and modification.

81. Despite all technological possibilities for experimenting in the network area, the necessity to maintain services that satisfy all information needs even within well-defined subject fields should be kept in mind.

VI. THE TRAINING OF USERS AND INFORMATION OFFICERS

82. Several Unesco meeting have endorsed the view that efforts should be concentrated on providing proper training at the national level, or where this is premiture, on the establishment of appropriate training programmes at regional level. However, any training programme at the regional level will often be different from what can be afforded at the national level. It must be based upon an analysis of the need for training. This need may be of two kinds, namely the users'need and the need of those in the profession, the "information officers".

83. The user needs may depend upon a variety of causes, usually including :

(a) lack of education which makes the potential user unable to formulate his information problem,
(b) lack of appreciation of the possible value of information,
(c) lack of knowledge or appreciation of the potential possibilities of existing information services,
(d) absence of suitable information services.

84. By using an inquiry technique including questionnaires and individual interviews it might be possible to find out on what basis the training should be founded. Such a technique has been used for college students in Poland and for people in industry and small business in the Scandinavian countries. An analysis of the failure of the existing services to meet actual users'needs will indicate not only what might be done by training to improve use of the services by existing users, but also how to widen the circle of users.

85. However, a regional effort to meet the needs of users must have a multiplier effect. This is true of tutorial seminars or courses for academic teachers, training officers from trade associations or branch institutes who, in turn, spread the message to the ultimate user. Successful seminars for academic teachers from the four Scandinavian countries have been held in order to show the importance of including literature searches, personal ordering or filing systems, technical report writing, etc. in the curricula for students in science and technology. Usually, technical studies do not prepare students for contact with scientific information. Model curricula could be adopted in various subject fields on a regional basis.

86. A multiplier effect could also be achieved by a co-operative effort to make available to various centres the audio-visual training packages which are now coming on the market for various information sources such as Beilstein, Chemical abstracts, Science citation index, Abstract services in sciences, etc. These 'canned' training packages are suitable for regional co-operation to adapt them to local needs by the translation of the accompanying tapes, and some adjustment of the slides to suit the local environment, etc.

87. The co-operative elaboration of training aids could include the translation and adjustment to local needs of various guides and manuals prepared by Unesco, e.g. Guide for the preparation of synopsis, Guide for the presentation in the primary literature of numerical data derived from experiments, etc., and give these a broad distribution among the institutions of higher education within the region.

88. A successful exercise which has markedly raised the scientific level of doctoral research work has been to provide SDI-service to research students in their specific fields while they were doing thesis work. As mentioned above (see p.15) this could be performed on a regional basis by a central SDI-service, if the co-operating countries grant the necessary funds.

89. The Scandinavian countries have a common fund to provide such a SDI service to students in the educational research field. The multiplier effect shows after-wards, since the students after graduation continue to use the SDI service or inform others of its benefits.

90. Also, an analysis of the needs must be carried out for training programmes for documentalists, librarians and archivists, i.e. information officers. Libraries and information services need a wide range of individuals with different skills and potentials, such as those with managerial skill, those with the ability to introduce new technologies, those capable of original thought about information problems and technicians capable of operating the processes which have been adopted. For a whole region, different training arrangements could be designed to be applied to individuals of adequate calibre. So the question of training must be linked with a selection process of those of adequate calibre for a specific type of training.

91. A survey of the existing specialized manpower situation should therefore be carried out and forecasts of the needs made to meet the expansion of the combined information needs of the region.

92. Again, to arrive at a multiplier effect, a regional course could be directed primarily to library school teachers i.e. to educate the educators, whereby a harmonization of the curricula could be an important subject.

93. Several studies have shown that curricula of established library schools have been adapted to include such topics as modern techniques in information storage, retrieval and dissemination, data processing and library automation, information science methodology or applications of other technology to the information transfer.

94. Consideration should also be given to successful experiences in developing countries in the creation of upgrading courses in librarianship and information science. A regional course could develop a model curriculum compatible with international standards to be applied nationally.

95. Also for information officers guidelines and manuals exist which from a regional point of view would benefit from translation an adaptation to local needs, for instance many of the UNISIST and NATIS documents.

96. Specific topics, like map conservation, terminal handling techniques, library planning, utilization of patents, input techniques to international systems like INIS or AGRIS, inter-library loan activities, etc. are well suited for regional seminars and workshops. In order to achieve national bibliographic control compatible with international standards, seminars could also be arranged about the UBC programme, the exploitation of MARC tapes to produce specific national library catalogues, etc.

VII. MACHINERY FOR REGIONAL CO-OPERATION

97. The NATIS report from Unesco states :

"Government should establish the appropriate organs for the operation of NATIS and clearly designate responsibilities and determine priorities at all levels, bearing in mind that coping with the quantities of documents and data now being produced far exceeds the resources of any single service acting on its own.

98. It is therefore highly desirable that a central co-ordinating body (bodies) be set up to advise the government on the formulation and implementation of national information programmes and in matters related to international co-operation in these fields".

99. Similarly, the UNISIST programme recommends :

" A governmental or government-chartered agency should exist at the national level to guide, stimulate and conduct the development of information resources and services in the perspective of national, regional and international co-operation. These agencies should in particular give their support, or themselves adhere to, co-operative programmes of international scope in consonance with the principles and goals of UNISIST".

100. If the governments of countries in a particular region have set up such central co-ordinating and policy-making mechanisms, efforts should be made to seek regional co-operation either by forming joint committees or by establishing a more permanent body with secretariat and funds at the regional level.

101. Examples of such mechanisms on the regional level are MTsNTI for the COMECON countries, the CIDST for the Common Market countries and NORDDOK and NORDFORSK for the Scandinavian countries.

102. The necessity to provide such policy-formulating bodies with funds for improving the information situation of the region holds good for these three examples.

103. Within that regional framework various sub-groups might be formed to implement some of the above suggested proposals on an ad hoc basis.

104. The establishment of a permanent regional body might be a lengthy process since it implies multilateral government agreement. By voluntary co-operation joint committees could be formed, e.g. joint committees for national libraries, for national ISDS-centres, for library schools, etc. However, the members of these committees would need funds from national sources to meet, arrange broader meetings, seminars, etc. Adequate and committed funding with mutual responsibility for participation in such co-operative committees might be easier to achieve nationally than to make a common regional fund for such work.

VIII. PRE-REQUISITES FOR EFFECTIVE REGIONAL CO-OPERATION

105. Experience has shown that there is virtue in separating the policy-formulating bodies from operations, and that is also valid on the regional level. It is also important that a co-operative programme receives government funding, either by establishing a regional fund, or by national funding for the common goal. It is insufficient merely to provide an organizational tool, a joint committee, a working group; etc. ; provision must be made to ensure its efficient use.

106. It is not necessary for all participating countries to have a coherent, comprehensive information policy covering all types of scientific, technological, economic or societal information. The establishment of policy-formulating bodies in the form of joint committees could be one step in preparing the ground for a dialogue over the frontiers and preparing for grouping into a regional framework. One way to success could be for each country to nominate counterparts representing similar or equivalent bodies on the national scene.

107. However, the two most serious barriers to regional development of library systems, co-operative ventures and networks are : the fear of possible loss of national autonomy as the price for membership in the regional effort ; the necessity to provide sufficient funding. There are, of course, many other barriers : physical, geographical, legal and administrative, which could be overcome if this fear was removed or considerably lessened and adequate funding was available.

108. Some basic steps could be taken even before governments enter into discussion on regional co-operation, i.e. adherence in each country to established standards, to Universal Bibliographic Control, to the NATIS and UNISIST requirements, etc.